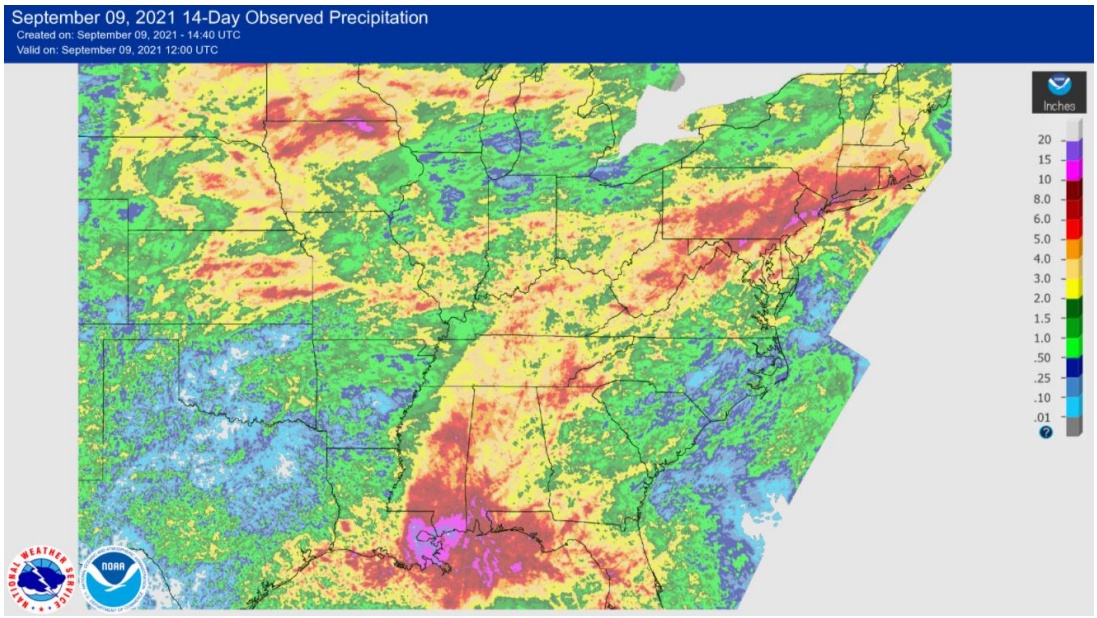
United States Department of Agriculture

Water and Climate Update

September 09, 2021

The Natural Resources Conservation Service produces this weekly report using data and products from the National Water and Climate Center and other agencies. The report focuses on seasonal snowpack, precipitation, temperature, and drought conditions in the U.S.

Hurricane Ida leaves widespread damage



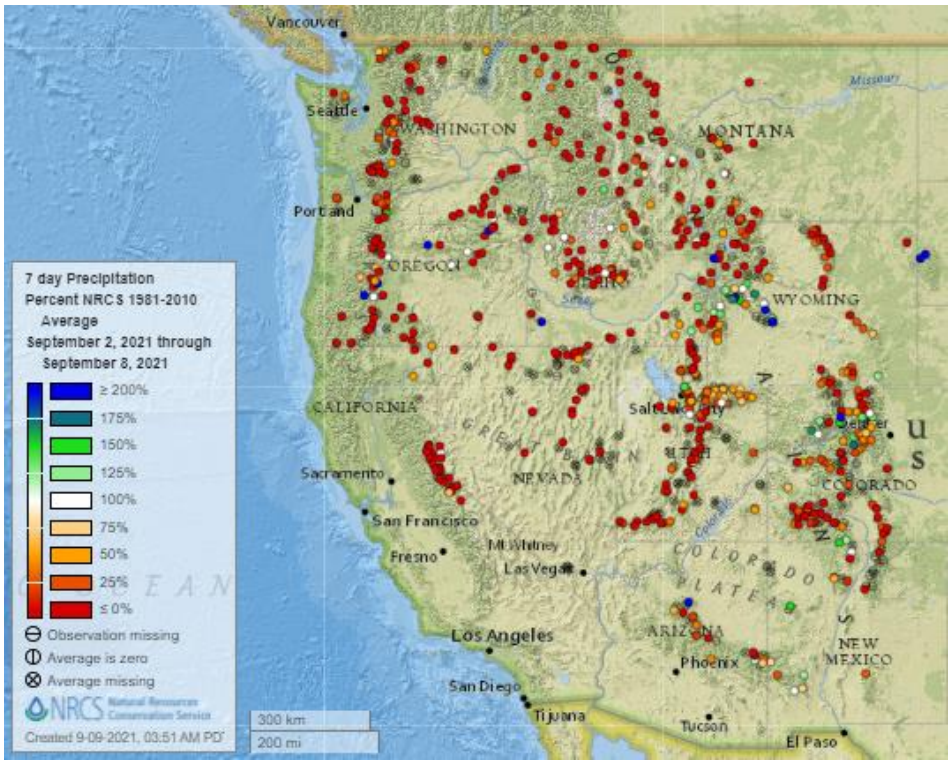
Hurricane Ida made landfall in Louisiana on August 29 as a category 4 hurricane. The storm brought a swath of heavy rain from Louisiana to Connecticut, with the two-week precipitation totals in these hard-hit areas topping 10 inches in the Northeast and over 20 inches in Louisiana and Mississippi. Widespread destruction from wind, tornadoes, rain, and flooding in these areas have caused extensive home and business damage, evacuations, power outages, and deaths.

Related:

Hurricane Ida death toll jumps to 82 – CBS News
Death Toll From Hurricane Ida Climbs To 26 In Louisiana – Huffpost
The road to recovery for Louisiana residents after Hurricane Ida leaves trail of damage – CBS News
Over 400K Remain Without Power in Louisiana 9 Days After Hurricane Ida – Newsweek
'It ain't easy right now': Hurricane Ida strands residents, wipes away landmarks on Louisiana island – Yahoo! News
Hurricane Ida Leaves Trail of Damage From South to Northeast – Wallstreet Journal
Hurricane Ida's damage tally could top $95 billion, making it 7th costliest hurricane since 2000 – CNBC
Photos Show Hurricane Ida's Destructive Path Throughout The Northeast – Yahoo News
New York Recovers From Hurricane Ida's Catastrophic Flooding – New York Times

Precipitation

Last 7 Days, NRCS SNOTEL Network

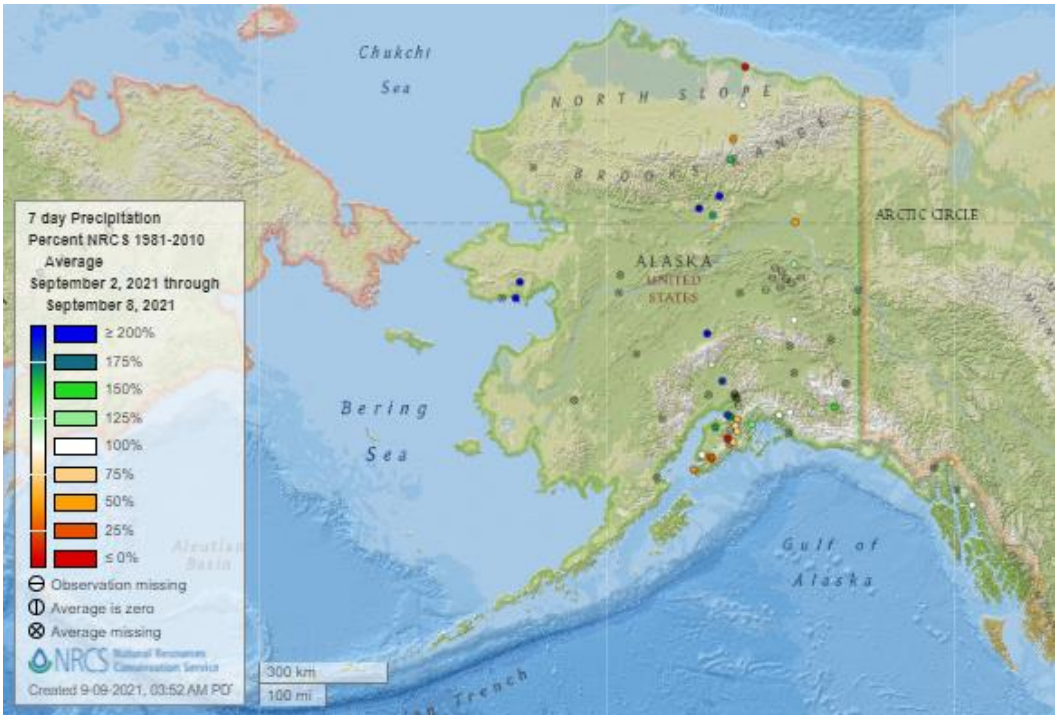


[7-day precipitation percent of average map]

See also:
[7-day total precipitation values (inches) map]

[Alaska 7-day precipitation percent of average map]

See also:
[Alaska 7-day total precipitation values (inches) map]

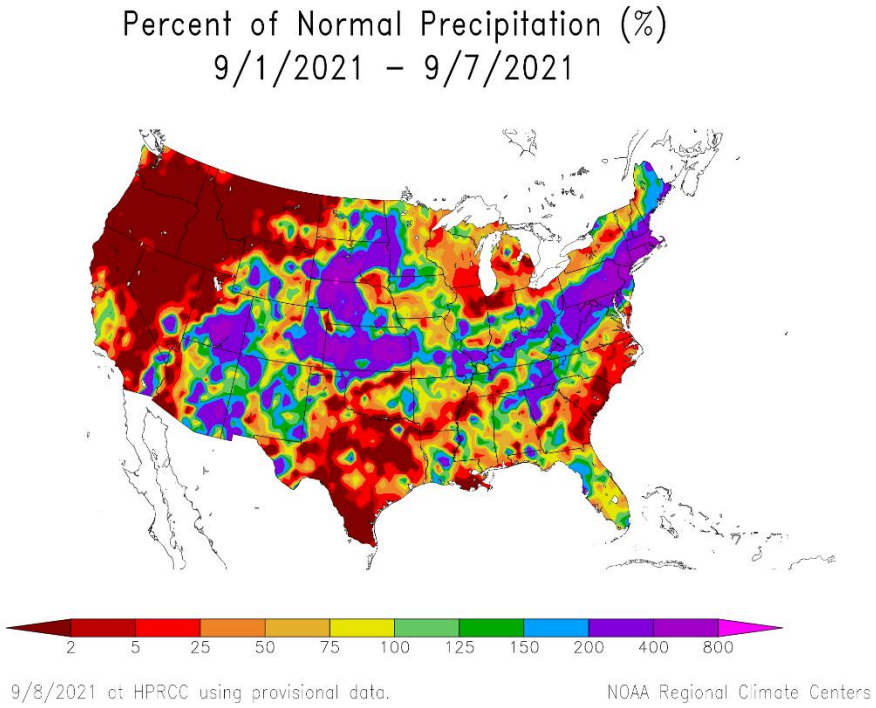


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day precipitation percent of normal map] for the continental U.S.

See also: [7-day total precipitation values (inches) map]

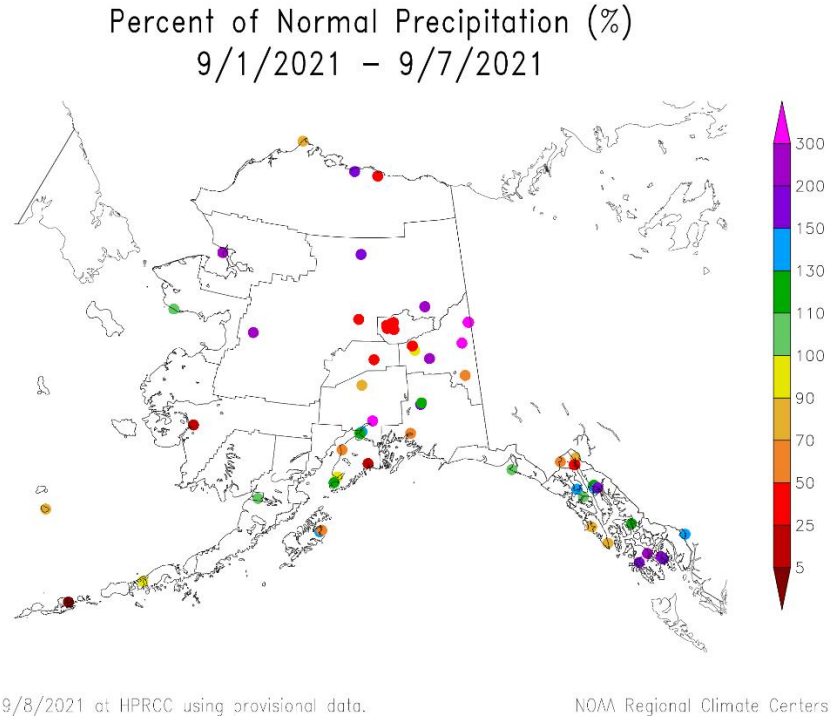


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

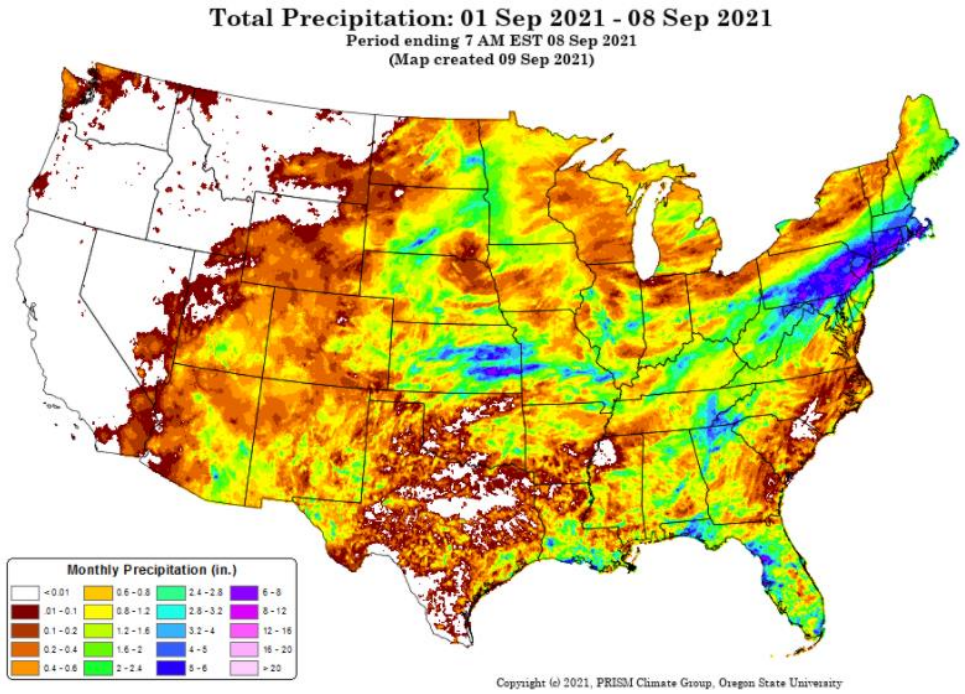
[7-day precipitation anomaly map] for Alaska.

See also:
[7-day total precipitation values (inches) map]



Month-to-Date, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

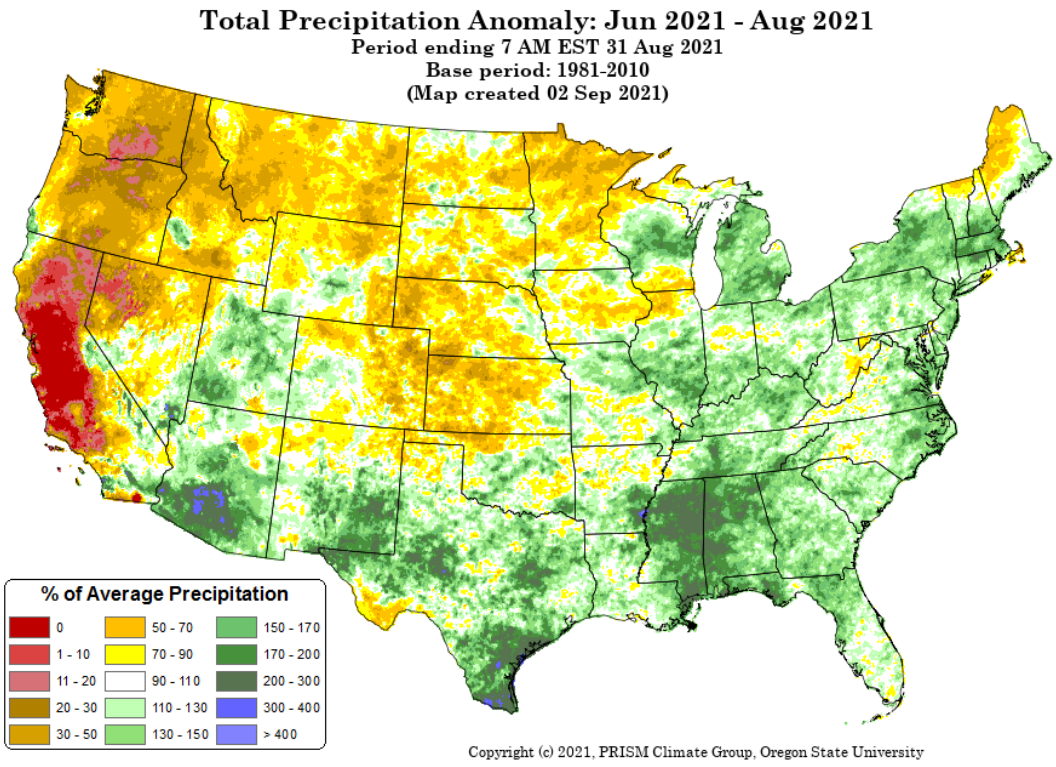


[Month-to-date national total precipitation anomaly map]

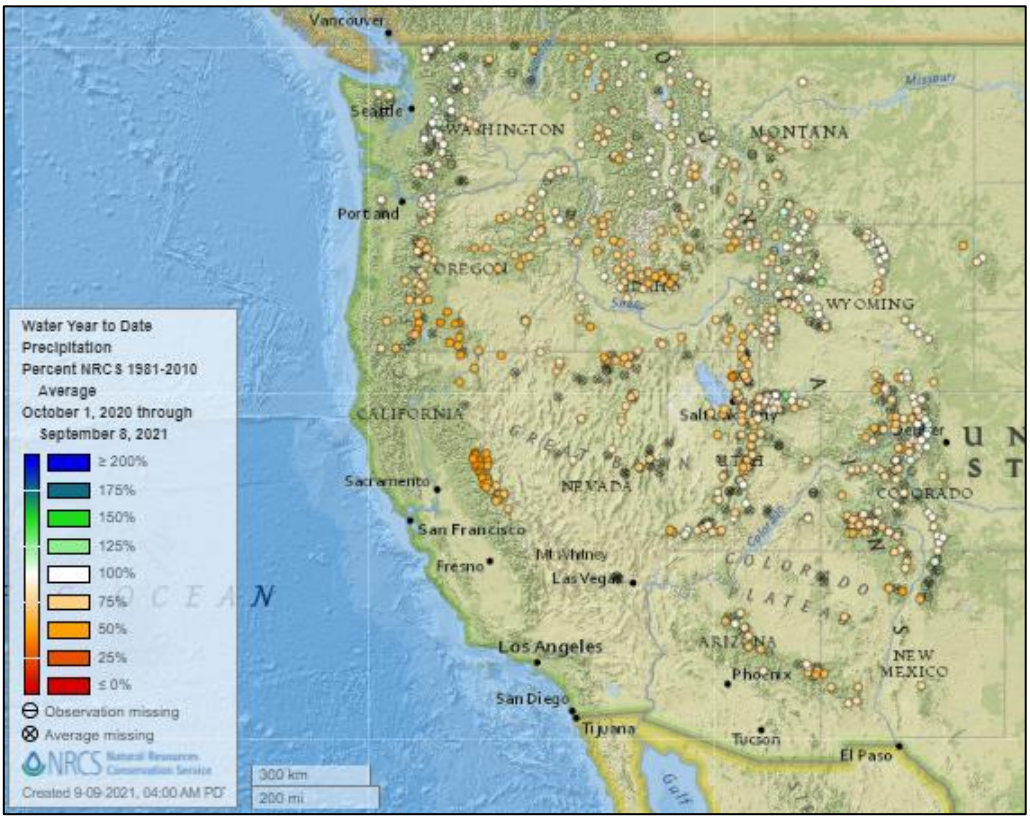
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

[June through August 2021 precipitation anomaly map]



Water Year-to-Date, NRCS SNOTEL Network



[2021 water year-to-date precipitation percent of average map]

See also:
[2021 water year-to-date precipitation values (inches) map]

[Alaska 2021 water year-to-date precipitation percent of average map]

See also:
[Alaska 2021 water year-to-date precipitation values (inches) map]

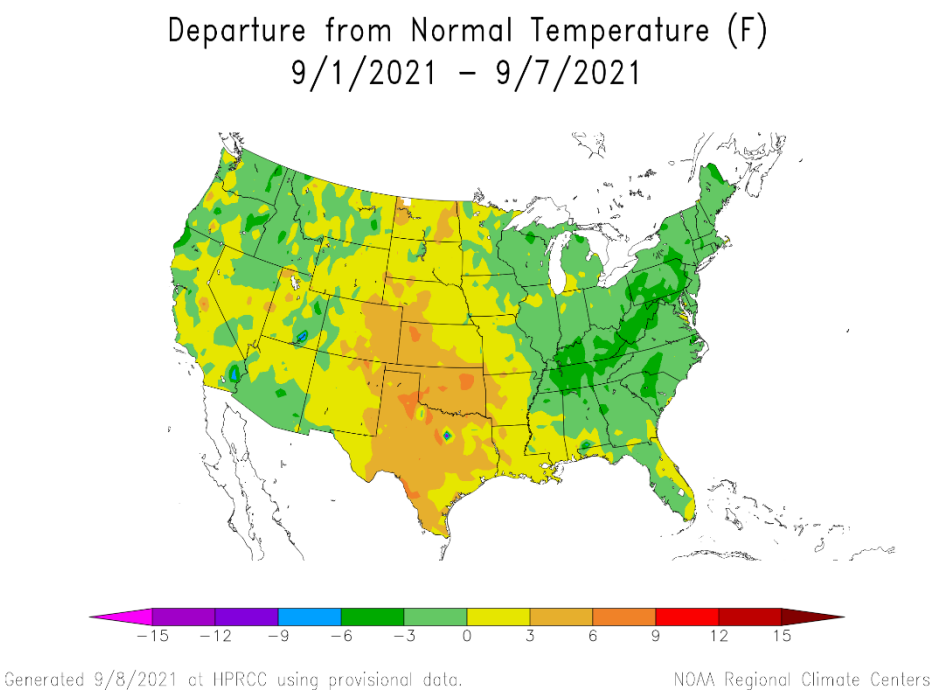
Temperature

Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day temperature anomaly map] for the contiguous U.S.

See also: [7-day temperature (° F) map]

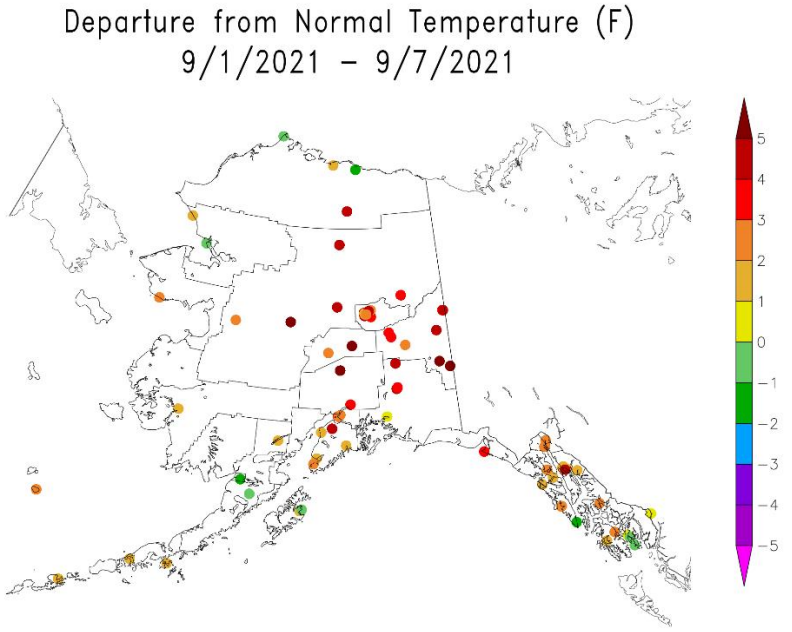


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day temperature anomaly map] for Alaska.

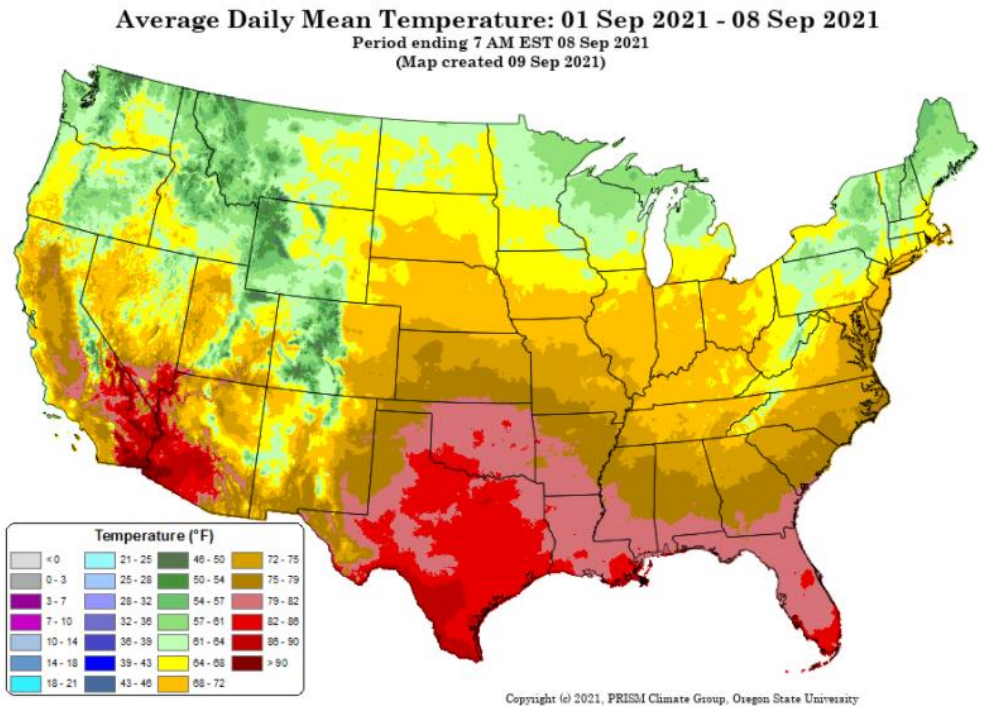
See also:
[7-day temperature (° F) map]



Month-to-date, All Available Data Including SNOTEL and NWS Networks

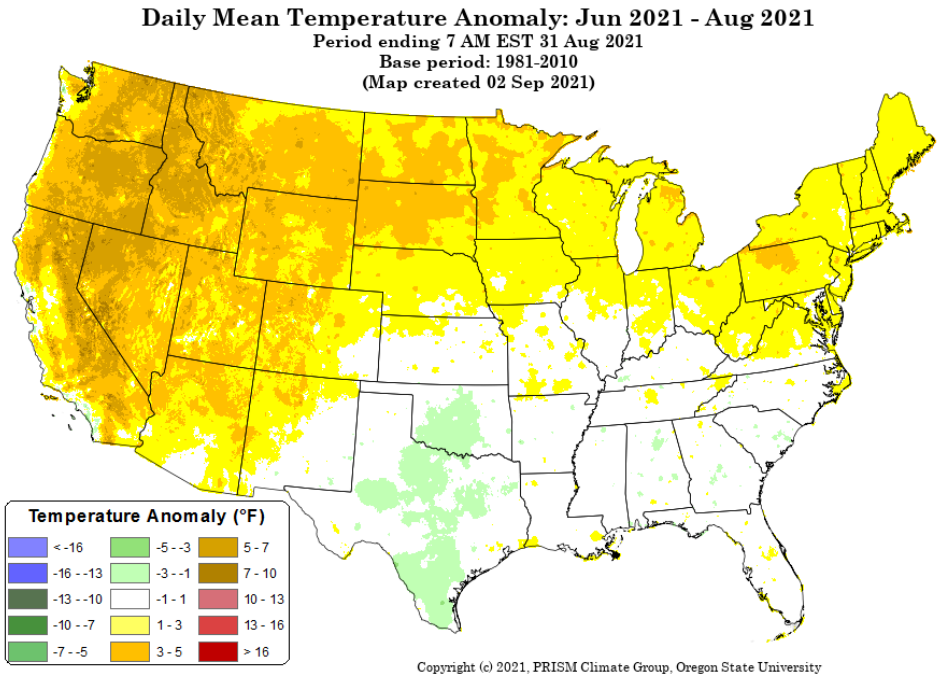
Source: PRISM

[Month-to-date national daily mean temperature anomaly map]



Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

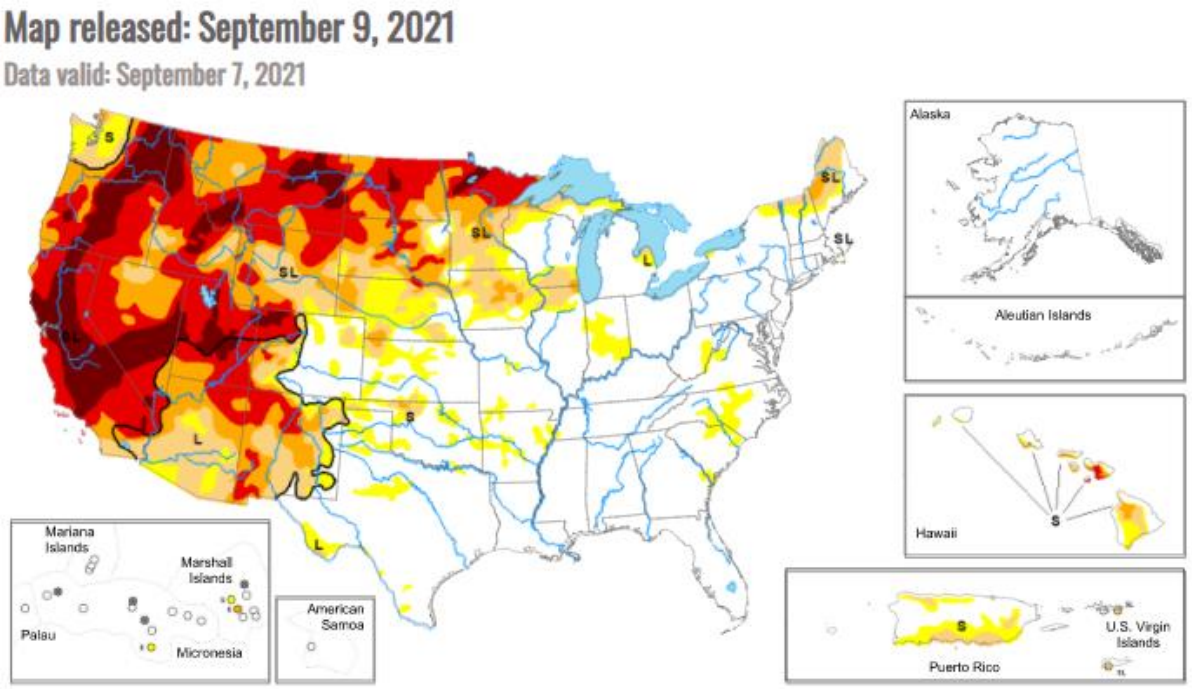


[June through August 2021 daily mean temperature anomaly map]

Drought

U.S. Drought Monitor
Source: National Drought Mitigation Center

U.S. Drought Portal
Source: NOAA



United States and Puerto Rico Author(s):
David Simeral, Western Regional Climate Center

Pacific Islands and Virgin Islands Author(s):
Richard Tinker, NOAA/NWS/NCEP/CPC

☐ View grayscale version of the map

The data cutoff for Drought Monitor maps is each Tuesday at 8 a.m. EDT. The maps, which are based on analysis of the data, are released each Thursday at 8:30 a.m. Eastern Time.

Intensity and Impacts

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data

~ - Delineates dominant impacts

S - Short-term impacts, typically less than 6 months (agriculture, grasslands)

L - Long-term impacts, typically greater than 6 months (hydrology, ecology)

SL - Short- and long-term impacts

Current National Drought Summary, September 09, 2021

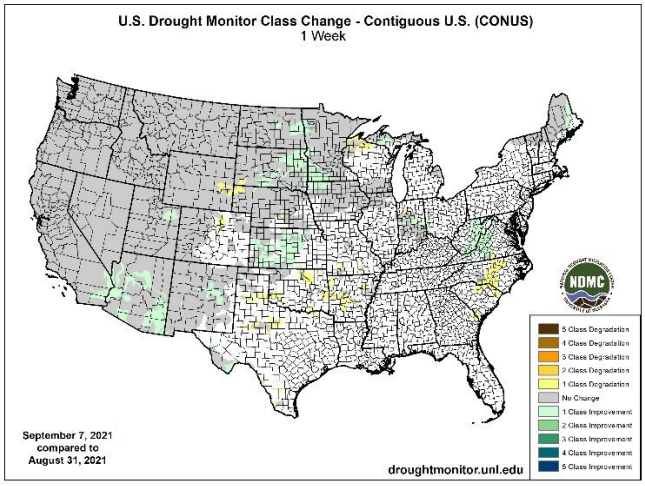
Source: National Drought Mitigation Center

“This U.S. Drought Monitor (USDM) week saw continued improvement in conditions across drought-stricken areas of the Central and Northern Plains states as well as in Iowa and Minnesota where light-to-moderate rainfall accumulations were observed. Despite recent precipitation in the Northern Plains, hay shortages and the associated costs of purchasing and transporting supplemental feed are forcing some ranchers to sell livestock. In response to the emerging situation, the U.S. Department of Agriculture (USDA) announced expansion of emergency assistance through the ELAP program to help cover feed transportation costs for drought-impacted ranchers. In the Northeast, the remnants of Hurricane Ida brought intense, heavy rains (5 to 10+ inches) and devastating flooding to areas of Pennsylvania, New Jersey, New York, and Connecticut. In the Southeast, short-term dryness (past 30- to 60-day period) and declining soil moisture and streamflow levels led to degradation on the map in portions of the Carolinas. In the South, short-term precipitation shortfalls and declining soil moisture levels led to some degradation of conditions in areas of Arkansas and Oklahoma that have largely missed out on recent rainfall events. Out West, dry conditions prevailed across most of the region this week. However, some beneficial rainfall was observed across isolated areas of the Southwest in association with the remnants of Hurricane Nora.”

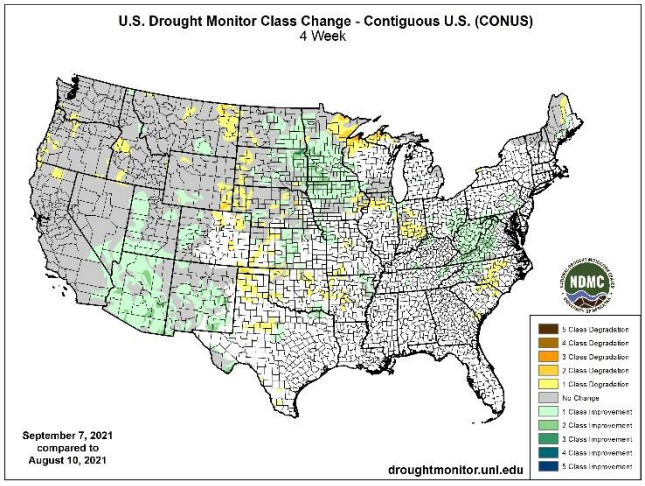
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

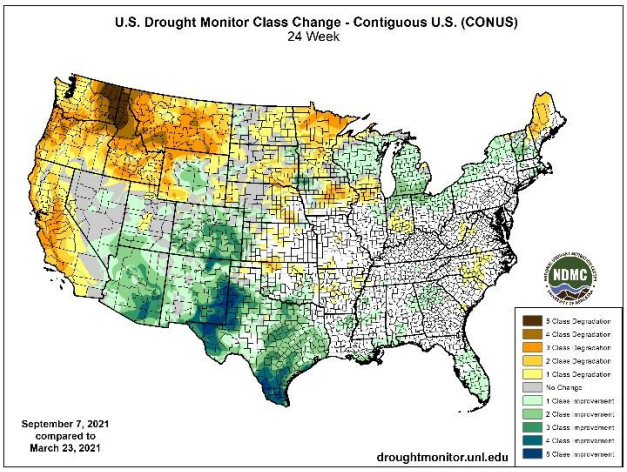
1 Week



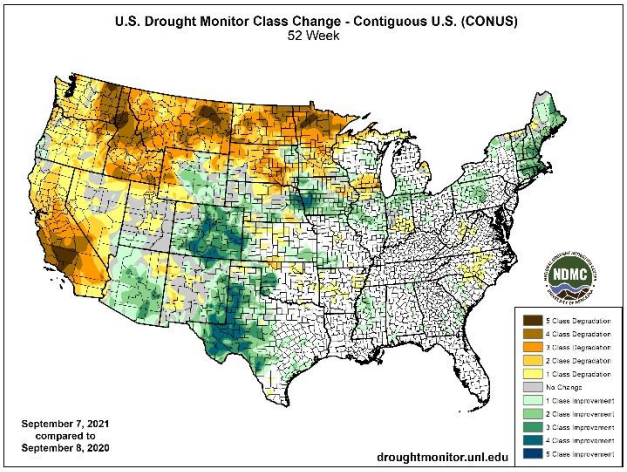
1 Month



6 Months



1 Year

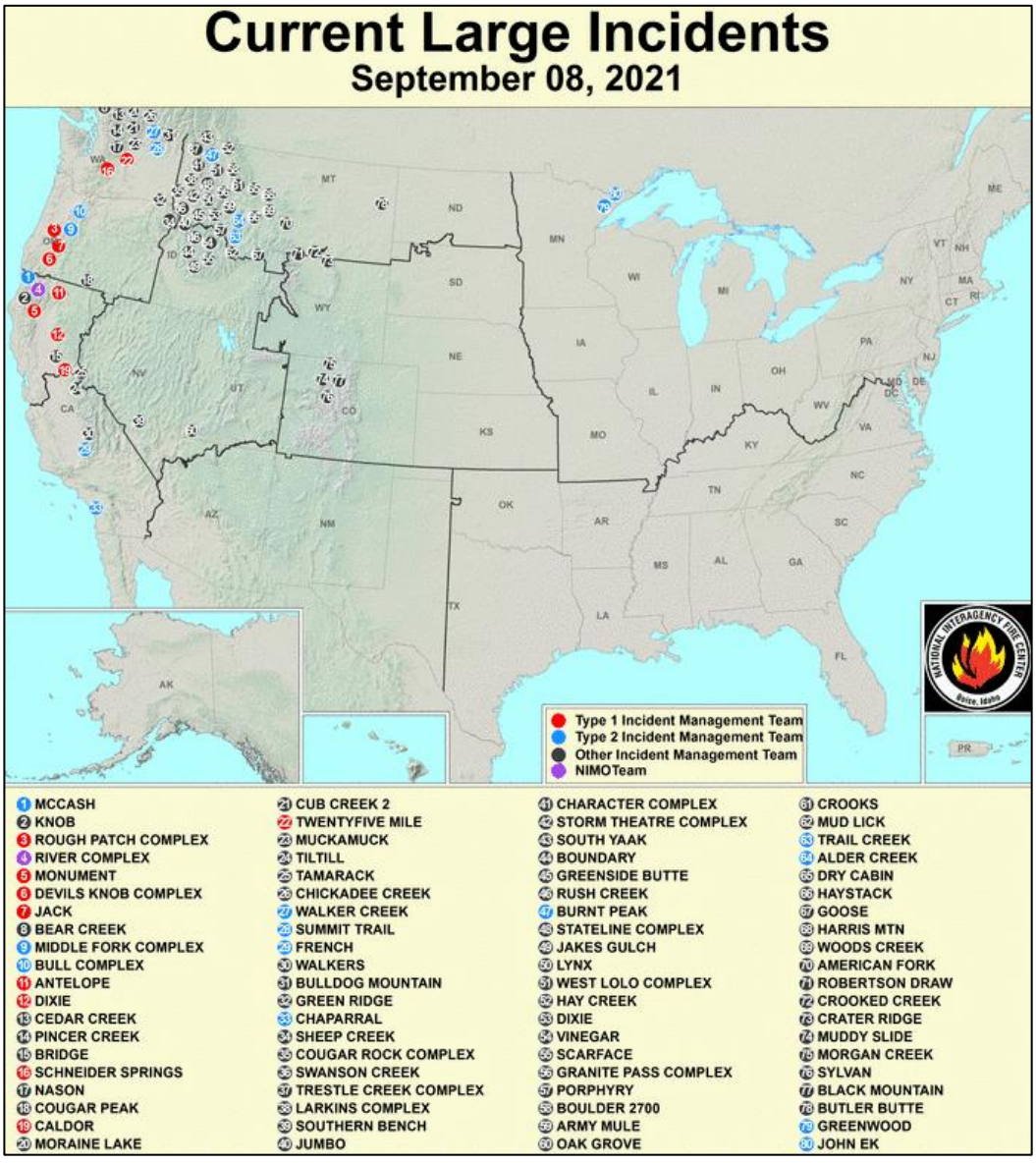


Changes in drought conditions over the last 12 months for the contiguous U.S.

Highlighted Drought Resources

- Drought Impact Reporter
- Quarterly Regional Climate Impacts and Outlook
- U.S. Drought Portal Indicators and Monitoring
- U.S. Population in Drought, Weekly Comparison
- USDA Disaster and Drought Information

Wildfires: [USDA Forest Service Active Fire Mapping]



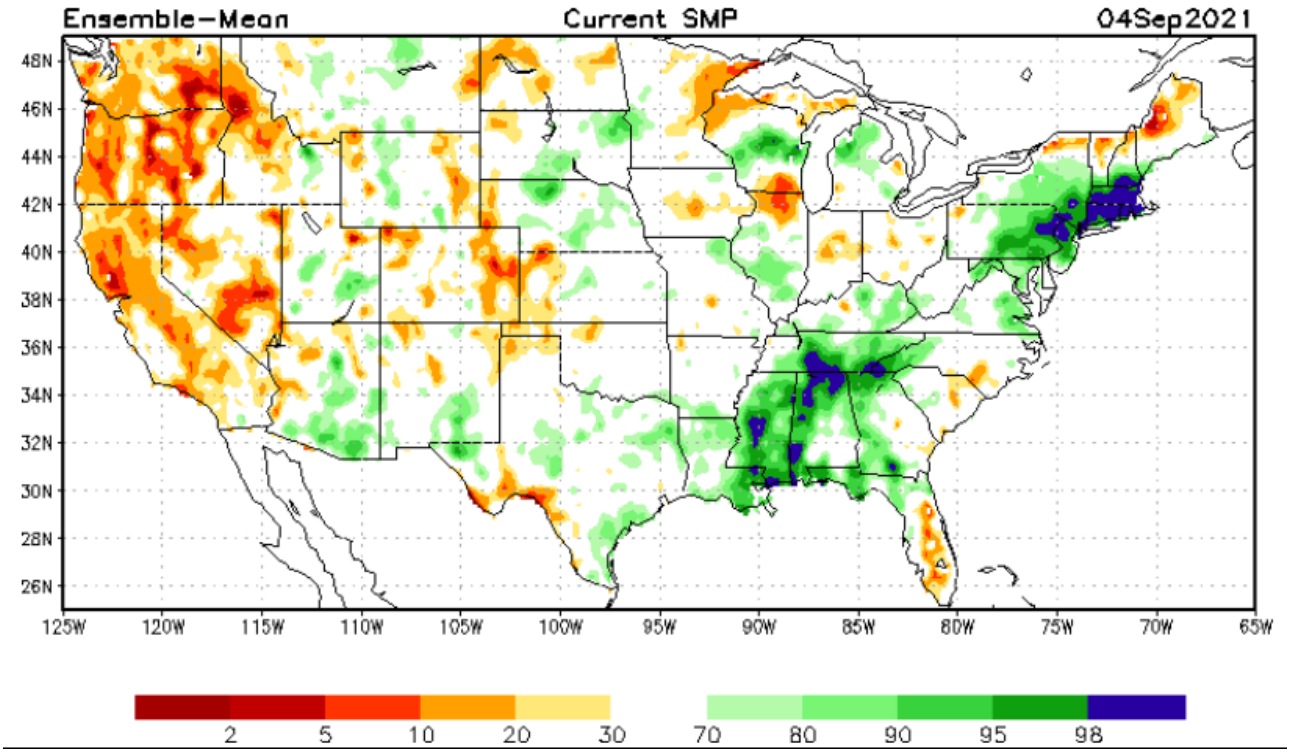
Highlighted Wildfire Resources

- National Interagency Fire Center
- InciWeb Incident Information System
- Significant Wildland Fire Potential Outlook

Other Climatic and Water Supply Indicators

Soil Moisture

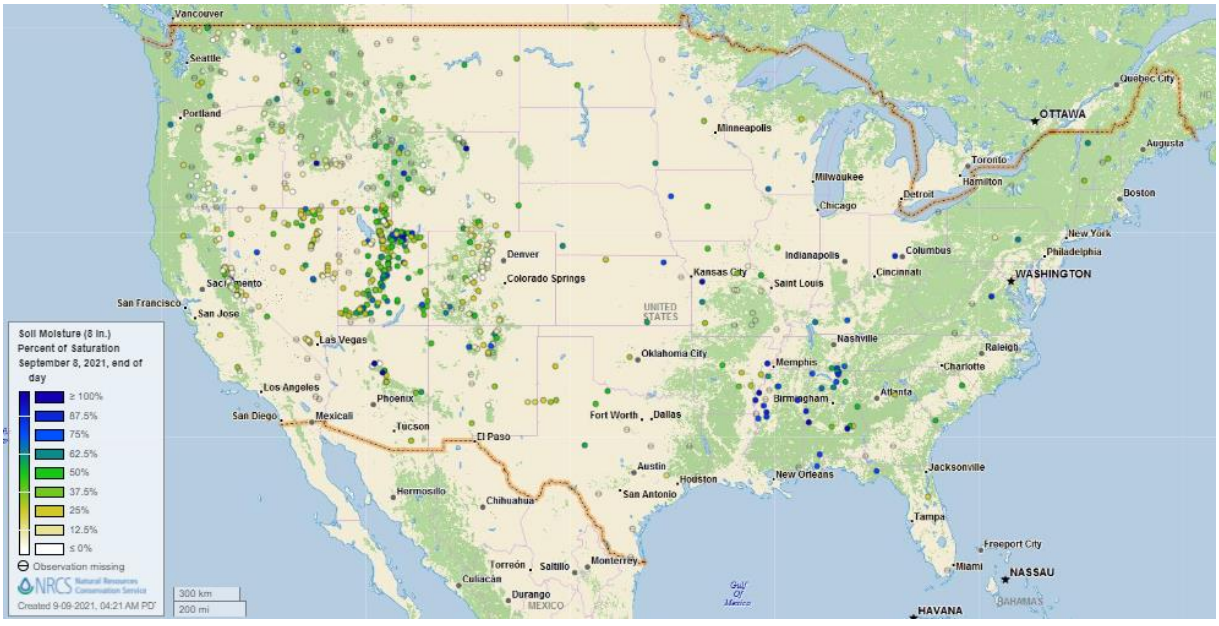
Source: NOAA National Centers for Environmental Prediction



[Modeled soil moisture percentiles](#) as of August 21, 2021

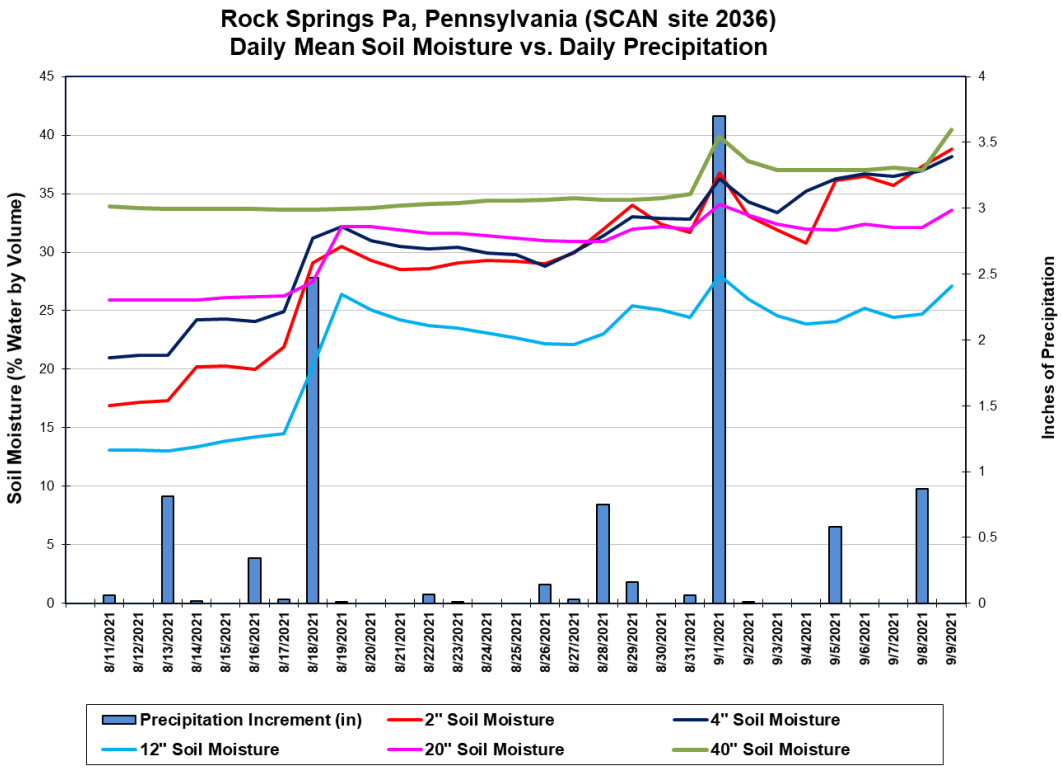
Soil Moisture Percent of Saturation

Source: NRCS SNOTEL and [Soil Climate Analysis Network](#) (SCAN) Soil Moisture at [-8 inch sensor depths](#)



Soil Moisture

Source: NRCS Soil Climate Analysis Network (SCAN)



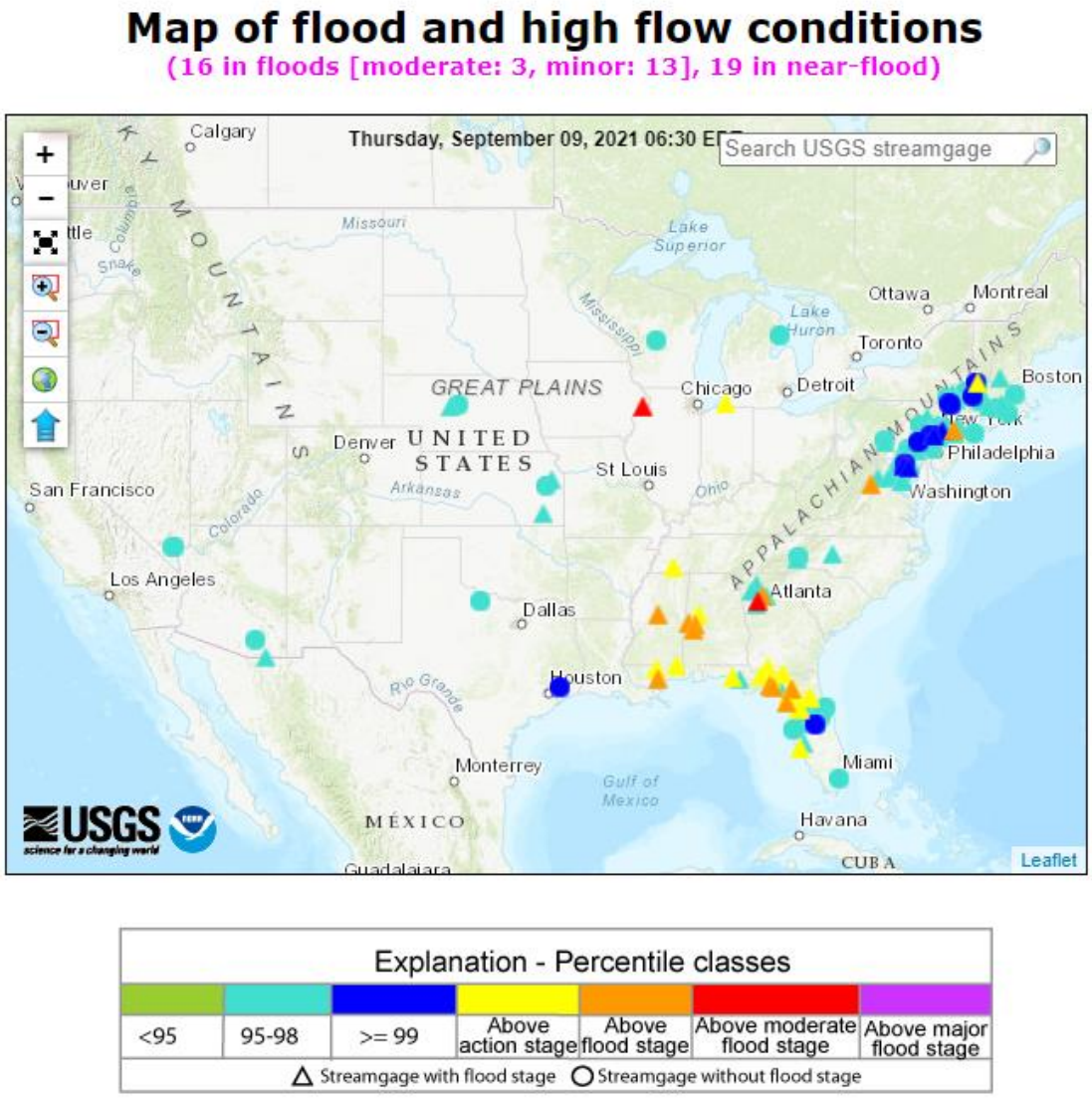
This chart shows the precipitation and soil moisture for the last 30 days at the Rock Springs Pa SCAN site in Pennsylvania. Precipitation of 3.70 inches fell on September 1 from hurricane Ida, with all depth sensors showing an increase in soil moisture. The precipitation total for the 30 day period was 10.12 inches.

Soil Moisture Data Portals

- USCRN Soil Moisture
- National Soil Moisture Network
- NOAA Climate Prediction Center Soil Moisture
- NASA Grace

Streamflow, Drought, Flood, and Runoff

Source: U.S. Geological Survey



Explanation - Percentile classes						
<95	95-98	>= 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage
△ Streamgage with flood stage ○ Streamgage without flood stage						

[WaterWatch: Streamflow, drought, flood, and runoff conditions]

Reservoir Storage

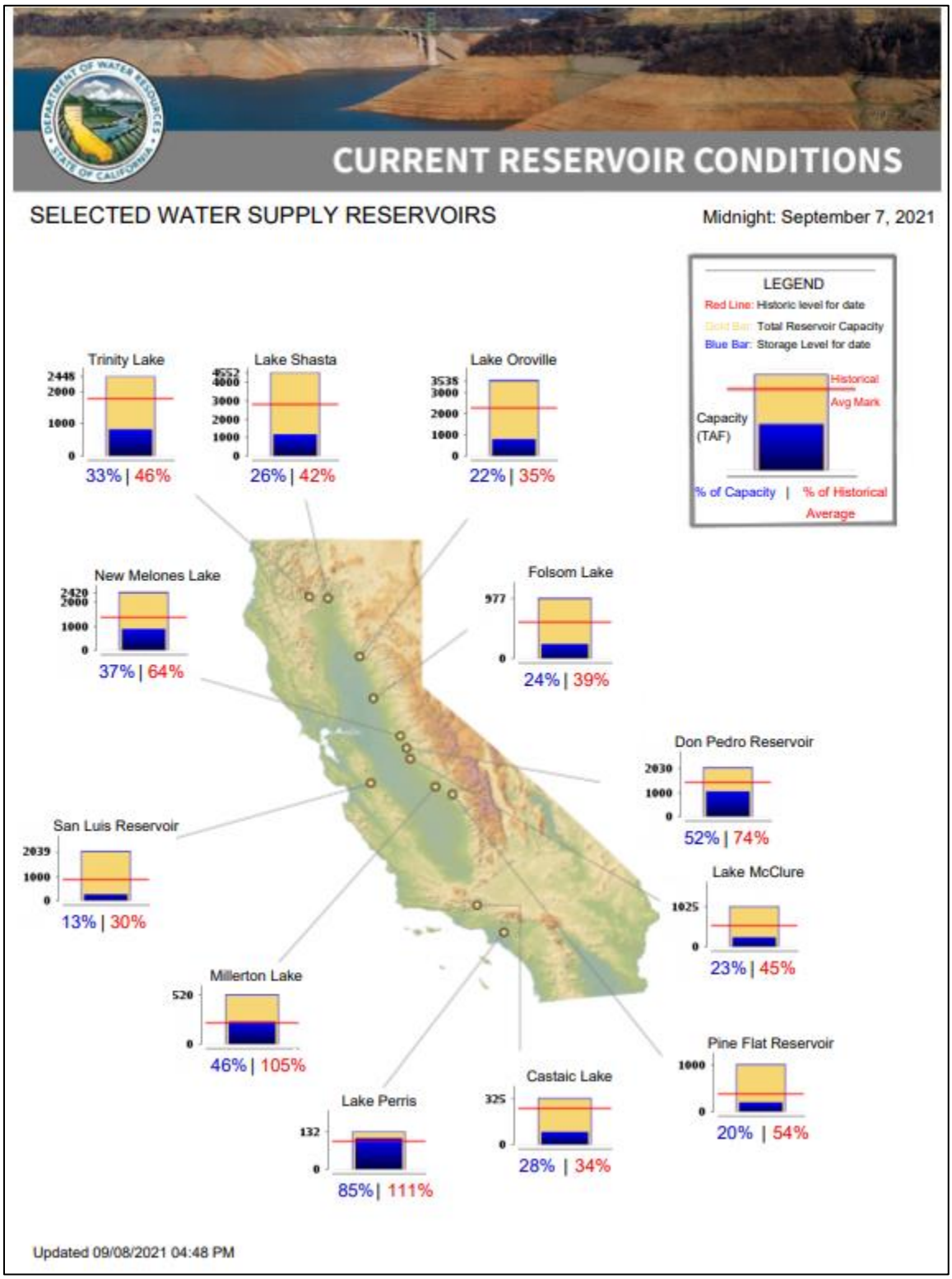
Hydromet Teacup Reservoir Depictions

Source: U.S. Bureau of Reclamation

- [Upper Colorado]
- [Pacific Northwest/Snake/Columbia]
- [Sevier River Water, Utah]
- [Upper Missouri, Kansas, Oklahoma, Texas]

Current California Reservoir Conditions

Source: California Department of Water Resources



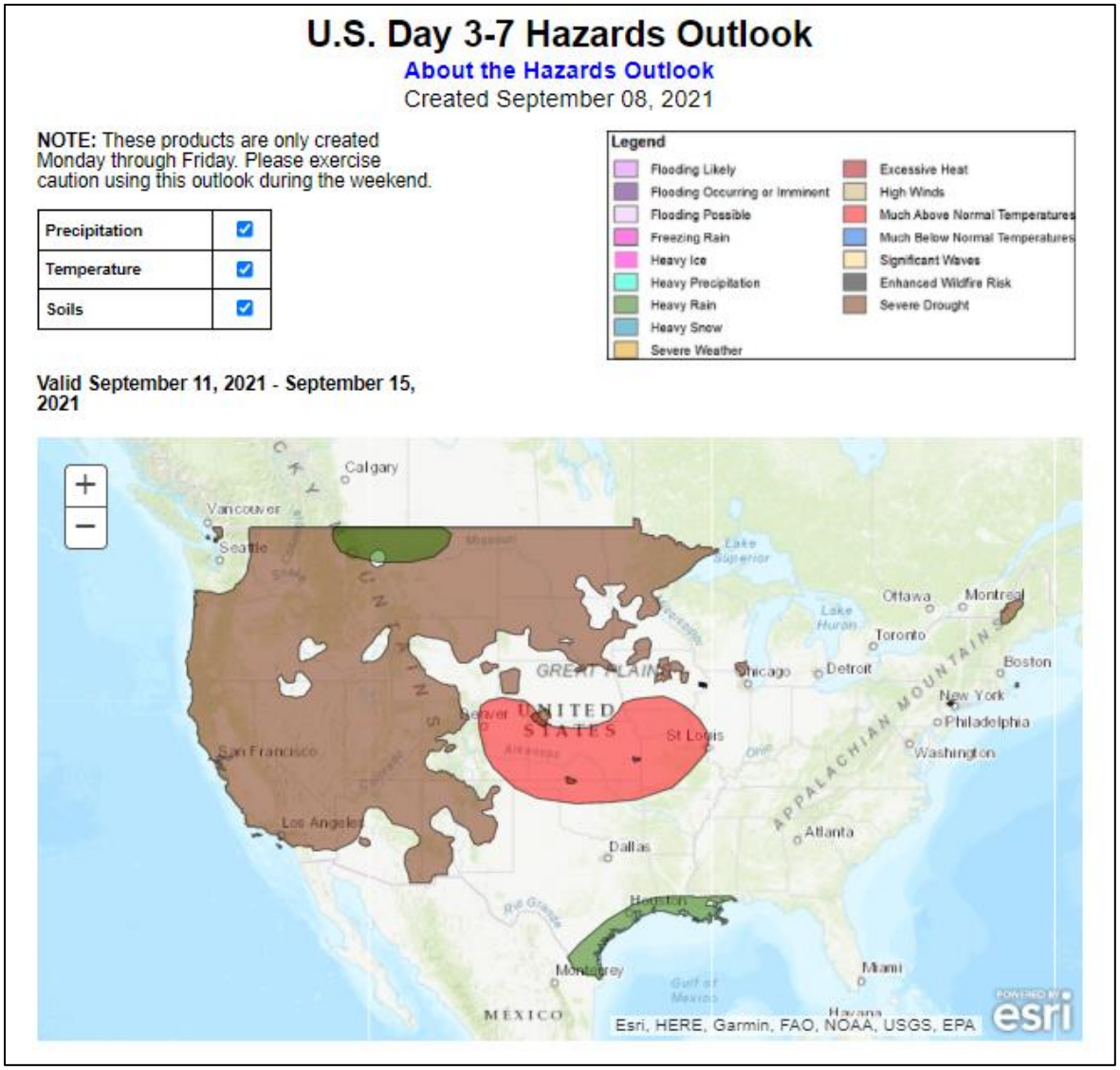
Agricultural Weather Highlights

Author: Brad Rippey, Agricultural Meteorologist, USDA/OCE/WAOB

National Outlook, Thursday, September 9, 2021: "Later today, the remnants of Tropical Storm Mindy will move over the western Atlantic Ocean and should continue to weaken, ending the Southeastern threat of heavy showers. Meanwhile, a cold front crossing the northern and middle Atlantic States will produce rain on Thursday before departing the coast. Additional rainfall in eastern New England could total 1 to 3 inches or more. Meanwhile, the remainder of the country will receive minimal rain during the next 5 days. Exceptions may include the western Gulf Coast region, where tropical showers may develop as early as the weekend, and the nation's northern tier, which will experience brief periods of mostly light rain. Across the western half of the country, a late season hot spell will accompany the mostly dry conditions. The NWS 6- to 10-day outlook for September 14 – 18 calls for the likelihood of warmer-than-normal weather nationwide, except for near- or below-normal temperatures in the Northwest. Meanwhile, drier-than-normal conditions across much of the western half of the U.S. should contrast with above-normal rainfall in the Northeast and in a swath from the western Gulf Coast region into the lower Great Lakes States."

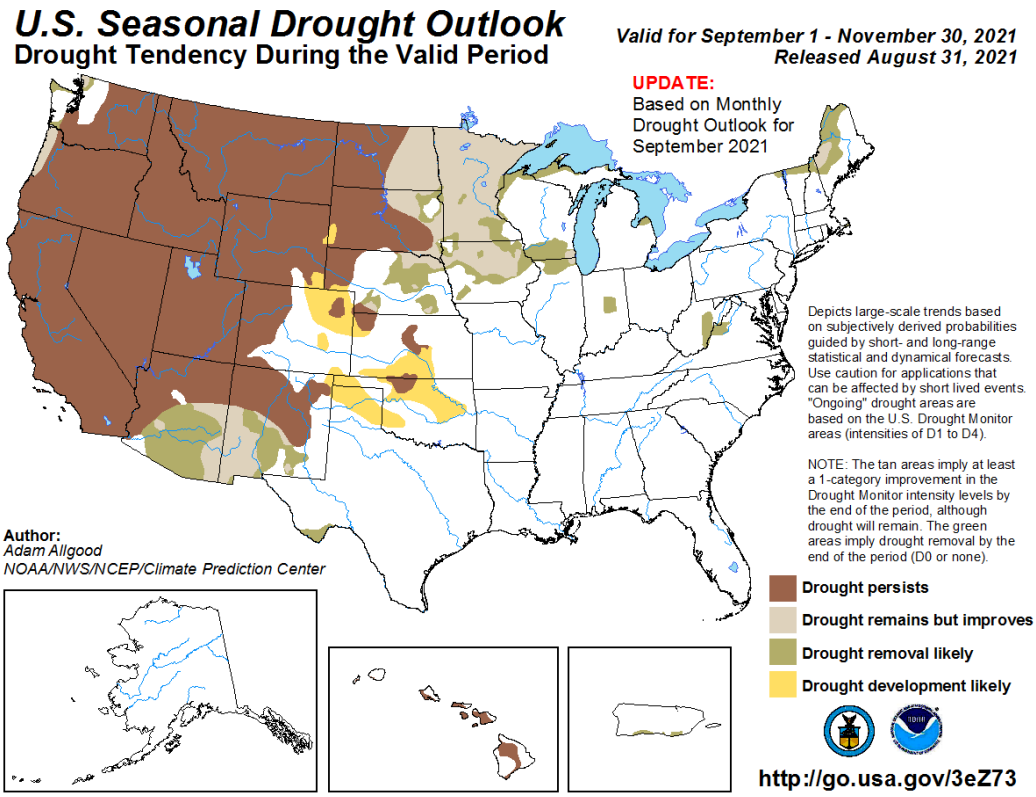
Weather Hazards Outlook: September 11 – September 15, 2021

Source: NOAA Weather Prediction Center



Seasonal Drought Outlook: [September 1 – November 30, 2021]

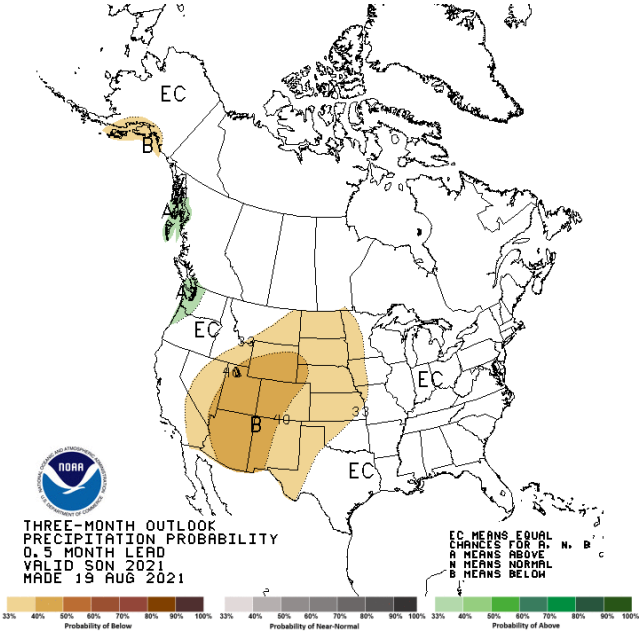
Source: National Weather Service



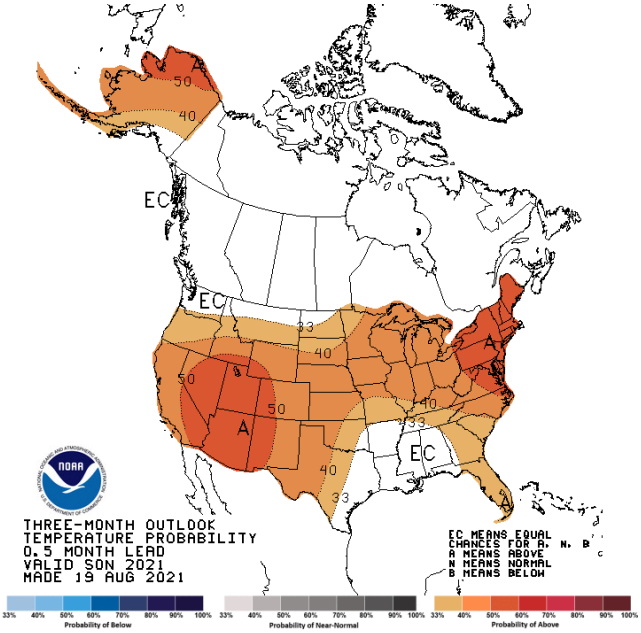
Climate Prediction Center 3-Month Outlook

Source: National Weather Service

[Precipitation]



[Temperature]



[September-October-November (SON) 2021 precipitation and temperature outlook summaries]

More Information

The NRCS National Water and Climate Center publishes this weekly report. We welcome your feedback. If you have questions or comments, please contact us.